

## WHAT IS CLAIMED IS:

## 1. A receiver, including:

an input unit which inputs a plurality of signals on which a processing is to be performed;

a switching unit which switches a plurality of weighting coefficients by which the plurality of inputted signals are multiplied between a plurality of first weighting coefficients to be temporarily utilized and a plurality of second weighting coefficients which have higher adaptabilities;

a controller which instructs the switching unit to switch the weighting coefficients between the plurality of first weighting coefficients and the plurality of second weighting coefficients; and

a synthesizer which synthesizes results of multiplications, where the multiplications are performed on the plurality of inputted signals and the plurality of weighting coefficients.

## 2. A receiver, includes:

an input unit which inputs a plurality of signals on which a processing is to be performed;

a switching unit which switches a plurality of weighting coefficients by which the plurality of inputted signals are multiplied between a plurality of first

weighting coefficients and a plurality of second weighting coefficients;

a controller which instructs the switching unit to switch the weighting coefficients between the plurality of first weighting coefficients and the plurality of second weighting coefficients in a prescribed interval, where the plurality of signals are inputted in a sequential manner during the interval; and

a synthesizer which synthesizes results of multiplications, where the multiplications are performed on the plurality of inputted signals and the plurality of weighting coefficients.

3. A receiver according to Claim 2, wherein the plurality of first weighting coefficients is set in a manner that, as results of multiplications by the plurality of inputted signals, a multiplication result corresponding to one signal among the plurality of inputted signals becomes effective.

4. A receiver according to Claim 3, wherein the one signal among the plurality of inputted signals is a signal having a largest value among the plurality of inputted signals.

5. A receiver according to Claim 2, wherein the plurality of first weighting coefficients is set by utilizing the plurality of second weighting coefficients which have

already been set.

6. A receiver according to Claim 2, further including:

a weighting coefficient updating unit which updates a plurality of third weighting coefficients adaptively based on the plurality of inputted signals;

a gap estimator which estimates gaps between the plurality of first weighting coefficients and the plurality of third weighting coefficients by performing a correlation processing between at least one of the plurality of inputted signals and a known signal; and

a gap compensator which generates the plurality of second weighting coefficients by compensating the plurality of third weighting coefficients based on the estimated gaps.

7. A receiver according to Claim 2, wherein the signals inputted during the prescribed interval in the sequential manner include signals having different characteristics, and wherein the controller instructs to switch the weighting coefficients between the first weighting coefficients and the second weighting coefficients when it is detected a shift point where the characteristics of the signals change.

8. A receiver according to Claim 6, wherein the controller inputs sequentially the plurality of third weighting coefficients updated in the weight coefficient updating unit

and instructs the switching unit to switch the weighting coefficients between the first weighting coefficients and the second weighting coefficients when fluctuation of the plurality of third weighting coefficients converges within a prescribed range.

9. A receiving method, including:

inputting a plurality of signals on which a processing is to be performed;

switching a plurality of weighting coefficients by which the plurality of inputted signals are multiplied between a plurality of first weighting coefficients to be temporarily utilized and a plurality of a second weighting coefficients which have higher adaptabilities;

giving an instruction of switching the weighting coefficients between the plurality of first weighting coefficients and the plurality of second weighting coefficients; and

synthesizing results of multiplications, where the multiplications are performed on the plurality of inputted signals and the plurality of weighting coefficients.

10. A receiving method, including:

inputting a plurality of signals on which a processing is to be performed;

switching a plurality of weighting coefficients by

which the plurality of inputted signals are multiplied between a plurality of first weighting coefficients and a plurality of second weighting coefficients;

giving an instruction of switching the weighting coefficients between the plurality of first weighting coefficients and the plurality of second weighting coefficients in a prescribed interval, where the plurality of signals are inputted in a sequential manner during the interval; and

synthesizing results of multiplications, where the multiplications are performed on the plurality of inputted signals and the plurality of weighting coefficients.

11. A receiving method according to Claim 10, wherein the plurality of first weighting coefficients is set in a manner that, as results of multiplications by the plurality of inputted signals, a multiplication result corresponding to one signal among the plurality of inputted signals becomes effective.

12. A receiving method according to Claim 11, wherein the one signal among the plurality of inputted signals is a signal having a largest value among the plurality of inputted signals.

13. A receiving method according to Claim 10, wherein the

plurality of first weighting coefficients may be set by utilizing the plurality of second weighting coefficients which have already been set.

14. A receiving method according to Claim 10, further including:

updating a plurality of third weighting coefficients adaptively based on the plurality of inputted signals;

estimating gaps between the plurality of first weighting coefficients and the plurality of third weighting coefficients by performing a correlation processing between at least one of the plurality of inputted signals and a known signal; and

generating the plurality of second weighting coefficients by compensating the plurality of third weighting coefficients based on the estimated gaps.

15. A receiving method according to Claim 10, wherein the signals inputted during the prescribed interval in the sequential manner include signals having different characteristics and wherein, in giving the instruction of switching the weighting coefficients between the first weighting coefficients and the second weighting coefficients, the instruction is given when it is detected a shift point where the characteristics of the signals change.

16. A receiving method according to Claim 14, wherein the plurality of third weighting coefficients updated is inputted sequentially in giving the instruction of switching the weighting coefficients between the first weighting coefficients and the second weighting coefficients, and the instruction is given when fluctuation of the plurality of third weighting coefficients converges within a prescribed range.

17. A program executable by a computer, including:

inputting a plurality of signals on which a processing is to be performed;

switching a plurality of weighting coefficients by which the plurality of inputted signals are multiplied between a plurality of first weighting coefficients to be temporarily utilized and a plurality of a second weighting coefficients which have higher adaptabilities;

giving an instruction of switching the weighting coefficients between the plurality of first weighting coefficients and the plurality of second weighting coefficients; and

synthesizing results of multiplications, where the multiplications are performed on the plurality of inputted signals and the plurality of weighting coefficients.

18. A program executable by a computer, including:

inputting a plurality of signals on which a processing is to be performed;

switching a plurality of weighting coefficients by which the plurality of inputted signals are multiplied between a plurality of first weighting coefficients and a plurality of second weighting coefficients;

giving an instruction of switching the weighting coefficients between the plurality of first weighting coefficients and the plurality of second weighting coefficients in a prescribed interval, where the plurality of signals are inputted in a sequential manner during the interval; and

synthesizing results of multiplications, where the multiplications are performed on the plurality of inputted signals and the plurality of weighting coefficients.

19. A program according to Claim 18, wherein the plurality of first weighting coefficients is set in a manner that, as results of multiplications by the plurality of inputted signals, a multiplication result corresponding to one signal among the plurality of inputted signals becomes effective.

20. A program according to Claim 19, wherein the one signal among the plurality of inputted signals is a signal having a largest value among the plurality of inputted signals.



21. A program according to Claim 18, wherein the plurality of first weighting coefficients may be set by utilizing the plurality of second weighting coefficients which have already been set.

22. A program according to Claim 18, further including:

updating a plurality of third weighting coefficients adaptively based on the plurality of inputted signals;

estimating gaps between the plurality of first weighting coefficients and the plurality of third weighting coefficients by performing a correlation processing between at least one of the plurality of inputted signals and a known signal; and

generating the plurality of second weighting coefficients by compensating the plurality of third weighting coefficients based on the estimated gaps.

23. A program according to Claim 18, wherein the signals inputted during the prescribed interval in the sequential manner include signals having different characteristics and wherein, in giving the instruction of switching the weighting coefficients between the first weighting coefficients and the second weighting coefficients, the instruction is given when it is detected a shift point where the characteristics of the signals change.

24. A receiving method according to Claim 22, wherein the plurality of third weighting coefficients updated is inputted sequentially in giving the instruction of switching the weighting coefficients between the first weighting coefficients and the second weighting coefficients, and the instruction is given when fluctuation of the plurality of third weighting coefficients converges within a prescribed range.